

# REPORT ON BOILERS.

No. 2294

Received at London Office

TUE. 29 OCT. 1918

Writing Report 21 Aug. 1918 When handed in at Local Office

Port of Kobe

Survey held at Osaka

Date, First Survey 14 Jan. 1918

Last Survey 29 June 1918

Book on the Steel Twin Sc. Steer. "Mtai Maru"

(Number of Visits 11)

Gross 477 2  
Tons Net 484 7

Built at Osaka

By whom built The Osaka Iron Works Ltd

When built 1918

Engines made at Osaka

By whom made Osaka

When made 1918

Boilers made at do

By whom made do

When made do

Indicated Horse Power 655

Owners The Osaka Shosen Kaisha Port belonging to Osaka

## WATER-TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Jno Spence & Sons Ltd, Brighton, Eng. Co.

Total Heating Surface of Boilers 1403 sq ft Is forced draft fitted Yes No. and Description of Boilers One Single Ended Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 7/3/18

Can each boiler be worked separately Yes Area of fire grate in each boiler 39.4 sq ft No. and Description of Valves to each boiler Two, direct spring Area of each valve 2 1/2 dia Pressure to which they are adjusted 205 lbs

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork 15 Mean dia. of boilers 19.0 Length 11.6

Material of shell plates Steel Thickness 1 1/8 Range of tensile strength 28-32 Are the shell plates welded or flanged No

Material of riveting: cir. seams Double riv. long. seams Triple riv. straps Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 1/2 x 4 1/8

Width of plates or width of butt straps 17 1/4 Per centages of strength of longitudinal joint rivets 88.0 Working pressure of shell by plate 85.7

Size of manhole in shell 12 x 16 Size of compensating ring 34 x 38 x 1 1/8 No. and Description of Furnaces in each boiler Two, Doughton's Material Steel Outside diameter 47 1/2 Length of plain part top 5/8 bottom 5/8

Description of longitudinal joint Weld. No. of strengthening rings Working pressure of furnace by the rules 212 Combustion chamber

Material Steel Thickness: Sides 21/32 Back 21/32 Top 21/32 Bottom 7/8 Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 9 x 8

If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 206 Material of stays Steel Area at smallest part 17.9

How are stays secured Double nuts Washers 7 1/2 x 1 3/16 Working pressure by rules 212 Material of stays Steel Area at smallest part 5.9

Area supported by each stay 17.17 Working pressure by rules 207 Material of Front plates at bottom Steel Thickness 13/16 Material of

Flower back plate Steel Thickness 13/16 Greatest pitch of stays 14 3/8 Working pressure of plate by rules 200 Diameter of tubes 3 1/4

Material of tube plates Steel Thickness: Front 13/16 Back 13/16 Mean pitch of stays 10 3/4 Pitch across wide

Working pressures by rules 200 lbs Girders to Chamber tops: Material Steel Depth and thickness of

Boiler at centre 10 1/2 x 7 (two) Length as per rule 34 1/2 Distance apart 9 Number and pitch of Stays in each 3 @ 8

Working pressure by rules 238 Steam dome: description of joint to shell % of strength of joint

Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Working pressure of shell by rules Crown plates Thickness How stayed

Superheater. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,

G. Jemuda



During progress of work in shops 14, 24 Jan. 7, 9, 13, Feb 7 Mar.

Is the approved plan of boiler forwarded here with

During erection on board vessel 20, 22, 29 June 1918 & 27 July

Total No. of visits 10.

### GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.)

This donkey boiler has been made under Special Survey, in accordance with the Rule requirements & the material & workmanship have been found good. The vessel is in my opinion eligible for the record of Auxiliary boiler pressure 200 lbs.

Survey fee included in Machinery fee When applied for 191.

Travelling Expenses (if any) £ When received 191.

FRI. 1 - NOV. 1918

FRI. FEB. 27, 1920

TUE. AUG. 10 1920

